Applicant respectfully traverses this ground of rejection since the application as filed clearly supported the amendment to the specification with respect to the quarter circle. Original claim 3 is clearly supported by the claims as filed and therefore, this is part of the original specification and the limitation "quarter circle cross section for the balls 3" can be incorporated into the specification.

Applicant is submitting herewith a completed Figure 2 of the drawing in which the grinding wheel 18 is shown in a cross section as well as the guide carriage 1. In the original Figure 2, the guide carriage was already provided with a hatching. In the completed Figure 2, the grinding wheel 18 is provided with a hatching. From the completed Figure 2, it can now be seen more distinctly that the ground raceway 10 is made by grinding and is situated nearer the U-crossbar 5 of the carriage 1 having an approximately quarter circle section corresponding to the shape of the grinding wheel. This feature can be seen from the original specification and claims of the application.

This feature is clearly shown in the application as filed. Beginning at lines 17 to 20 of page 4, it is stated "The guide carriage 1 is supported on these raceways through the balls 3. For this purpose, the guide carriage 1 has on the inner surface of each U-leg 6 adjacent to guide rail 2, an upper raceway 10 that is situated nearer the U-crossbar 5 and a lower raceway 11 that is situated further away from the U-crossbar 5." Lines 4 to 8 of claim 1 clearly recite "Each U-leg of the guide carriage having on an inner surface opposing guide rail, a ground raceway with an approximately quarter circle cross section for the balls, the raceway being made by a grinding wheel whose diameter is larger than a

diagonal dimension of the carriage cavity." In lines 1 to 4 of claim 3, it is stated "The ground raceway of each U-leg of the guide carriage is situated near the U-crossbar, and each U-leg comprises on the inner surface another raceway that is situated further away from the U-crossbar and has an approximately quarter circle cross section for the balls."

Therefore, it can be clearly be seen that Applicant did not introduce new matter into the application when the last paragraph on replacement sheet 4 was amended to read as follows "The ground raceway 10 made by grinding has an approximately quarter circle cross section for the balls 3. The ground raceway 10 of each U-leg 6 of the guide carriage 1 is situated nearer the U-crossbar 5 and each U-leg 6 comprises on the inner surface another raceway 11 that is situated further away from the U-crossbar 5 and has approximately a quarter circle cross section for the balls 3." Therefore, it is believed clear that the amendments the specification did not introduce any new matter.

With respect to the Examiner's supposition that Applicant intended a half circle cross section, this is not believed a correct assumption in view of the discussion above. Therefore, the claims properly claim a quarter circle cross section which is clearly supported in the application as filed. Therefore, withdrawal of these 112 rejections is requested.

Claims 1, 2 and 4 to 7 were rejected under 35 USC 102(b) as being anticipated by or under 35 USC 103 as being obvious the Tonogai patent. According to the Examiner, the reference shows a linear rolling bearing comprsing a guide carriage with a U-shaped

cross section in Figure 8 having a U-crossbar and two U-legs whereby the guide carriage forms a carriage cavity and partially surrounds a guide rail while being slidably mounted through balls on two longitudinal sides of the guide rail, each U-leg of the guide carriage having on an inner surface opposing the guide rail, a ground raceway with an approximately quarter circle cross section for the balls and a stop surface 21 having a retaining contour for a guide member 50 containing the balls B configured on a guide rail-distal outer surface of each U-leg of the guide carriage. The Examiner concedes that Tonogai is silent as to a process of grinding the stop surface and the raceway of the U-leg using one grinding wheel and made in one common work step. The Examiner deems that this would have been obvious to use a one-step process to save cost and time. Applicant has noted that the Examiner deems claim 3 to be allowable.

Applicant respectfully traverses these grounds of rejection since the Tonogai patent neither anticipates or renders obvious Applicant's invention. As conceded by the Examiner, the Tonogai patent is completely silent as to the means of forming the stop surface in the raceway of the U-leg by the use of a single grinding wheel made in a single common work step which is clearly described in lines 5 to 11 of page 2. The Examiner's attention is directed to the quoted paragraph bridging pages 6 and 7 of the last response.

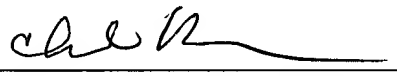
As previously noted, due to the semi-circular cross section of the upper groove for the load bearing balls of Tonogai, one is not able to use the grinding wheel corresponding to Applicant's claim 1 which requires that the raceway 1 have an approximately quarter circle cross section for the balls 3 which is made by a grinding wheel 18 whose diamater

is larger than a diagonal dimension of the carriage cavity and whose axis of rotation 19 is situated outside of the guide carriage 1 to form an acute angle α within an axis of symmetry 20 of the guide carriage. This is in no way taught in any fashion by Tonogai and the Examiner has not cited any reference which would have any teaching whatsoever of this step. A semi-circular cross section is not equivalent in Applicant's construction of the quarter circle cross section.

The advantage obtained by using a grinding wheel having a large diameter was described in the last paragraph of page 1 through line 3 of page 2 wherein it is stated that at the same speed of rotation, a higher peripheral speed is obtained with a grinding wheel having a large diameter rather than a wheel having a small diameter. A large diameter gives a higher grinding performance and a prolongation of the surface life of the wheel is obtained. The rotational speed of the grinding spindle cannot be indefinitely increased because this would lead to a destruction of the bearings. This is in no way taught or suggested by the Tonogai patent. The Examiner's unsupported statement that a one-step process would be obvious is in no way supported by the record. Therefore, withdrawal of these grounds of rejection is requested.

In view of the above remarks, it is believed that the claims clearly point out Applicant's patentable contribution and favorable reconsideration of the application is requested.

Respectfully submitted,
Muserlian, Lucas and Mercanti



Charles A. Muserlian, 19,683
Attorney for Applicant
Tel. # (212) 661-8000

CAM:ds
Enclosures